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FOREST PEST REPORTER

Division of Plant Industry PO Box 330 Trenton, NJ 08625-0330 609-292-5440

GYPSY MOTH DEFOLIATION INCREASES DRAMATICALLY

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B.T. YIELDS GOOD FOLIAGE PROTECTION

Statewide gypsy moth aerial sketch mapping surveys were completed in early July with defoliation levels up from 1,380 acres in 1999 to 132,762 acres. This represents a dramatic 100 fold increase in defoliation. Of this figure, 48,268 acres were moderately defoliated (25 -50%), 47,170 acres were heavily defoliated (51 - 75%) and 37, 324 acres were severely defoliated (76 - 100%).

A total of 93 municipalities in 16 counties were mapped with defoliation. The hardest hit were Morris County with 38,673 acres; Passaic County with37,495 acres; Sussex County with 31,354 acres; and Bergen County with 10,965 acres. Acres of severe defoliation would probably have been higher if it were not for the occurrence of the gypsy moth fungus, *Entomophaga maimaiga*, which did kill sizable numbers of late instar larvae in parts of Sussex, Morris and Hunterdon counties.

It appears that on the more mesic sites, the fungus disease managed to maintain itself in the soil to infect the fifth instar larvae. However, on the more xeric, rocky sites, the fungus disease was not as effective and the larvae populations were not only more damaging but most metamorphosed into the adult stage. Therefore, many new egg masses were deposited, insuring a continuing problem next year.

A summary of the acres defoliated by county is shown in the following table along with a state map of this year's gypsy moth defoliation. A more complete summary of the results, by municipality are available by contacting the Division at the above address or consulting our website at www.state.nj.us/agriculture/plant/index.htm/

Ground and aerial checks of three municipalities, involving 385 acres treated with 30 B.I.U.s of *Bacillus thuringiensis, B.t.,* per acre, showed good foliage protection. Gypsy moth defoliation levels in the spray blocks ranged from 5 to 30% as compared with 50 - 100% defoliation in untreated areas. Counts of egg masses in treated and untreated areas will be conducted later this summer.

FUNDING SHORTFALL FOR GYPSY MOTH SPRAY

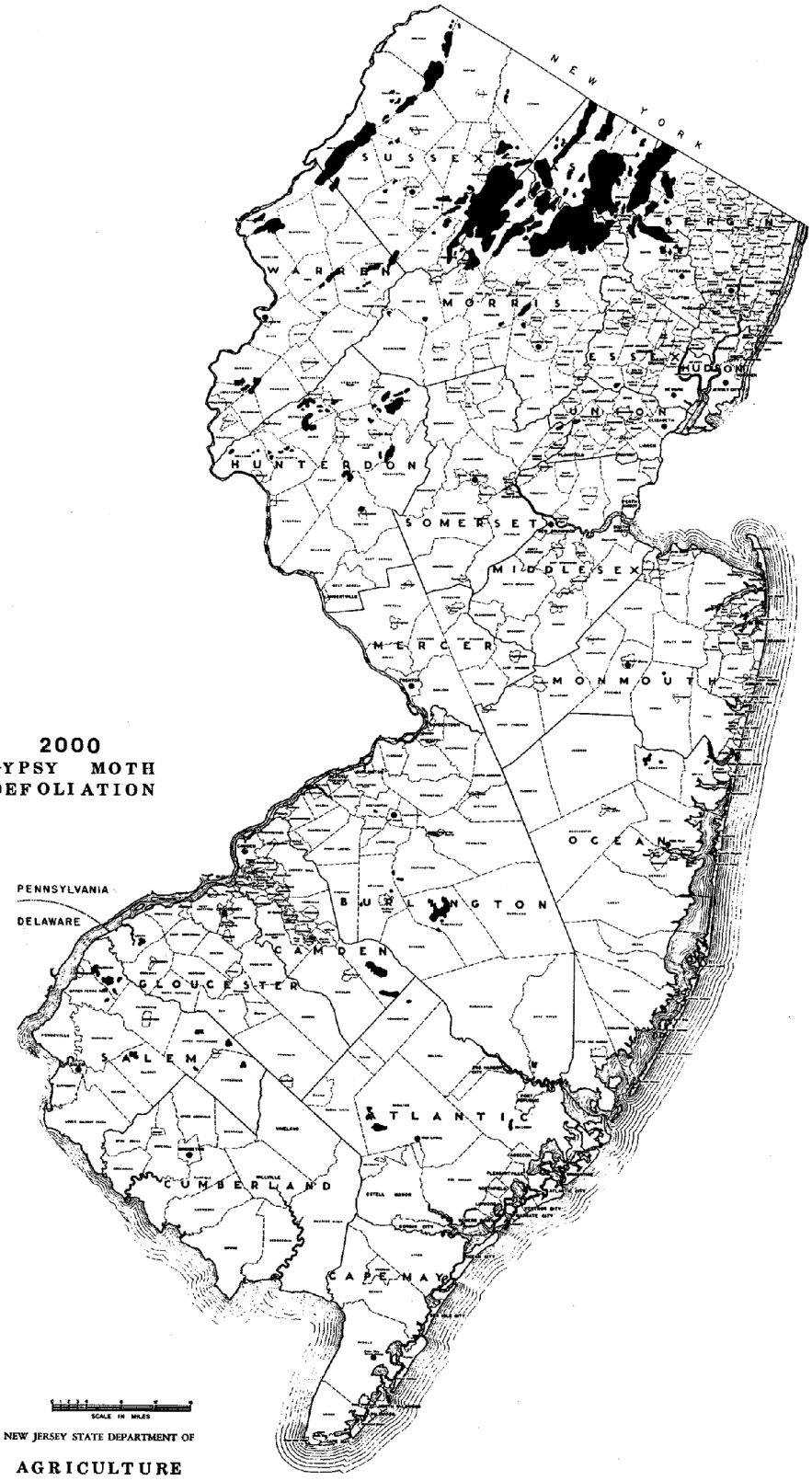
The level of gypsy moth spraying required next spring may send the Department back to the State Legislature for a supplemental appropriation. Otherwise, municipalities that want to participate in a cooperative gypsy moth suppression project next spring may be unable to do so.

GYPSY MOTH AERIAL DEFOLIATION SURVEY - 2000
NEW JERSEY DEPARTMENT OF AGRICULTURE
DIVISION OF PLANT INDUSTRY - COUNTY SUMMARY

County	Number Municipalities Infested	Moderate 25 - 50 %	Heavy 51 - 75%	Severe 76 - 100%	Total Acreage Defoliated
Atlantic	*3*	*60*	*370*	*35*	465
Bergen	*3*	*700*	*2,180*	*8,085*	*10,965*
Burlington	*8*	*0*	*390*	*1,150*	*1,540*
Camden	*2*	*200*	*530*	*60*	*790*
Essex	3	*140*	*150*	*0*	*290*
Gloucester	*1*	*0*	*0*	*120*	*120*
Hunterdon	*10*	*1,755*	*1,685*	*170*	*3,610*
Monmouth	*2*	*0*	*20*	*70*	*90*
Morris	*15*	*17,943*	*15,440*	*5,290*	*38,673*
Ocean	*2*	*100*	*165*	*0*	*265*
Passaic	*9*	*8,305*	*9,990*	*19,200*	*37,495*
Salem	*5*	*230*	*915*	*385*	*1,530*
Somerset	*1*	*0*	*115*	*0*	*115*
Sussex	*17*	*17,640*	*11,105*	*2,609*	*31,354*
Union	*1*	*190*	*0*	*0*	*190*
Warren	*12*	*1,005*	*4,115*	*150*	5,270
Grand Totals	**94**	**48,268**	**47,170**	**37,324**	**132,762**

GYPSY MOTH SUPPRESSION PROGRAM STAFF:

Bureau Chief - John Kegg
Entomologist - Joseph Zoltowski
Senior Inspector - William Fehr, Sr.
Secretary - Jacqueline Thomas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BURLINGTON
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